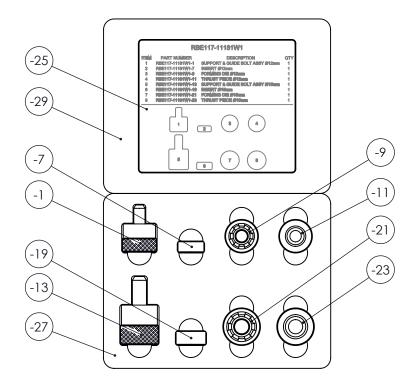
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REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED		
1		RELEASED FOR PRODUCTION.	7/18/2017	DPD	JAG		



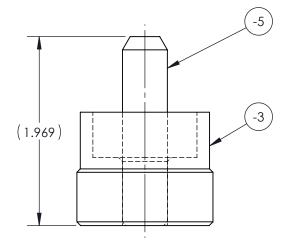
ASSY UNIT **B/O INFORMATION OR SPECIFICATIONS** B/O Part # Description Material QTY QTY QTY -1 SUPPORT & GUIDE BOLT ASSY Ø12mm 2 -3 SUPPORT Ø12mm 3 1 0-1 -5 4 GUIDE BOLT Ø12mm 0-1 -7 INSERT Ø12mm 0-1 5 -9 0-1 FORMING DIE Ø12mm -11 THRUST PIECE Ø12mm 0-1 7 Χ -13 SUPPORT & GUIDE BOLT ASSY Ø15mm 8 -15 SUPPORT Ø15mm 9 - 1 0-1 -17 O-1 10 GUIDE BOLT Ø15mm -19 INSERT Ø15mm O-1 11 -21 12 FORMING DIE Ø15mm 0-1 -23 13 THRUST PIECE Ø15mm 0-1 -25 CONTENTS PLACARD 14 PLASTIC B/O -27 BOTTOM FOAM ETHAFOAM 220, BLACK 2.90 X 7.29 X 9.47 (CASE SOLUTIONS) 15 B/O -29 TOP FOAM ETHAFOAM 220, BLACK 1.16 X 7.27 X 9.46 (CASE SOLUTIONS) 16 B/O -31 CASE PELICAN #APP-1200-E N/S PLASTIC B/O DART PLACARD ALUMINUM N/S ASSY -1 ASSY

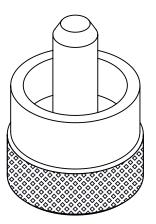
NOTES:

- 1. REF. AIRBUS T/N: 117-11181W1.
- 2. USAGE: FOR THE REMOVAL & INSTALLATION OF THE SPHERICAL BEARINGS LN9367GE15N1 & LN9367GE12N1 SUPPORTED BY CLAW RINGS.
- 3. USED ON MODELS:



	REVISIONS			
REV ECR	DESCRIPTION	DATE	INITIAL	APPROVED



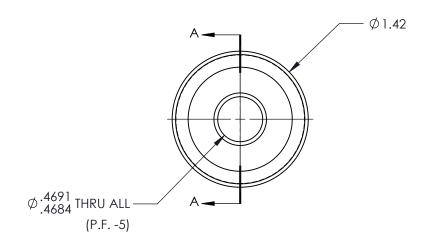


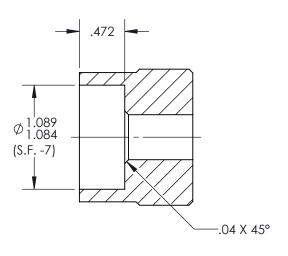
				RT		
TITLE	MA	AIN R	O	TOR DR	IVE	
	M	1UO	1111	NG TO)L	
DWG NO.	RBI	E117	'- 1	1181W	1-1	REV 1
MAT'L					S OTHERWISE SPECI	
HEAT TREAT				.xxx ± .005	FRACTIONS ± 1/8	
FINISH				.XX ± .01	ANGLES ±.5° SURFACES =	125/
SPEC					L SHARP EDGES	
DRAWN BY:	DD 06/29	/2017		.015 x 45° C		
CHECKED:	RJC 06/3	0/2017	7	AFTER PLA		
OPPS APPR:	AA 07/10)/2017		3. INTERPRET	T DIM AND TOL PER 5M-2009	
QA APPR:	JL 07/10/	2017			USED ON MODEL	
APPROVED:	JAG 07/1	9/2017	7	SEEI	NOTE 3, SHEE	Г 1
SCALE	1:1	DATE	6/2	29/2017	SHEET 2 OF	16

(-1)

SUPPORT & GUIDE BOLT ASSY Ø12mm

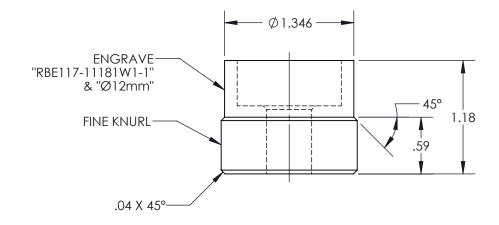
		REVISIONS			
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







SECTION A-A

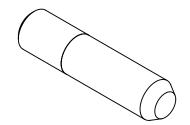


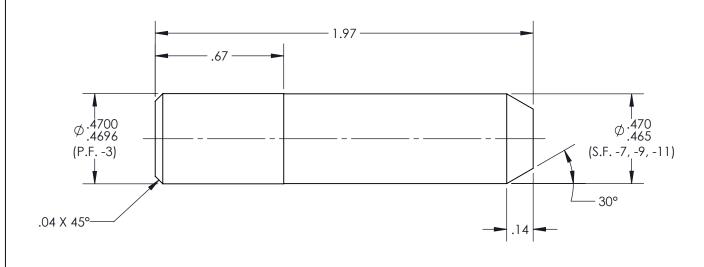
-3 SUPPORT Ø12mm

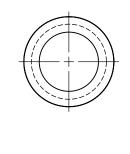
		D		RT		
TITLE	MA	AIN R	0	OR DR	IVE	
	M	AUO	IITI	NG TO)L	
DWG NO.	RBI	E117	-1	1181W	1-3	REV 1
MAT'L O-1					S OTHERWISE SPECI NSIONS ARE IN INCHI	
HEAT TREAT RC 50	-55			.xxx ± .005	FRACTIONS ± 1/8	
	(OXIDE			.XX ± .01 .X ± .1	ANGLES ±.5° SURFACES = 1	25/
SPEC QMSI-	6.2.2, B.O. R	EV D		1. BREAK AL	L SHARP EDGES	$\overline{\vee}$
DRAWN BY:	DD 06/29	/2017		.015 x 45° C	OR .015R NAL LIMITS APPLY	
CHECKED:	RJC 06/3	0/2017	'	AFTER PLA	TING	
OPPS APPR:	OPPS APPR: AA 07/10/2017				F DIM AND TOL PER 5M-2009	
QA APPR:	JL 07/10/	2017			USED ON MODEL	
APPROVED:	JAG 07/1	9/2017		SEE	NOTE 3, SHEET	⁻ 1
SCALE	1:1	DATE	6/2	9/2017	SHEET 3 OF	16

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 ECR
 DESCRIPTION
 DATE
 INITIAL
 APPROVED







				OSPACE			
TITLE	MA	AIN R	0	TOR DR	IVE		
	Μ	OUN	<u> </u>	NG TO	DL		
DWG NO.	RBI	E117	-1	1181W	1-5	REV 1	
MAT'L O-1					S OTHERWISE SPECIF		
TREAT RC 50-	-55			.XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1 SURFACES = 125/ 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY			
FINISH BLACK	(OXIDE						
SPEC QMSI-	6.2.2, B.O. R	EV D					
DRAWN BY:	DD 06/29	/2017					
CHECKED:	RJC 06/3	0/2017		AFTER PLA	TING		
OPPS APPR:	: AA 07/10/2017			3. INTERPRET	F DIM AND TOL PER 5M-2009		
QA APPR:	QA APPR: JL 07/10/2017				USED ON MODEL		
APPROVED:	JAG 07/1	9/2017		SEEI	NOTE 3, SHEET	1	
SCALE	2:1	DATE	6/2	29/2017	SHEET 4 OF	16	



GUIDE BOLT Ø12mm

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		7	A NER	RT	•	
TITLE	MA	AIN R	O	TOR DR	IVE	
	M	1UO.	IITI	NG TOC	DL	
DWG NO.	RBI	E117	- 1	1181W	1-7	REV 1
MAT'L O-1					S OTHERWISE SPECI NSIONS ARE IN INCH	
HEAT RC 50-	-55			.xxx ± .005	FRACTIONS ± 1/8	
	OXIDE			.XX ± .01 .X ± .1	ANGLES ±.5° SURFACES =	125/
SPEC QMSI-	6.2.2, B.O. R	EV D		1. BREAK ALI	L SHARP EDGES	V
DRAWN BY:	DD 06/29	/2017		.015 x 45° C	OR .015R NAL LIMITS APPLY	
CHECKED:	RJC 06/3	0/2017	,	AFTER PLA	ATING	
OPPS APPR:	AA 07/10)/2017		ASME Y14.	T DIM AND TOL PER 5M-2009	
QA APPR:	JL 07/10/	2017			USED ON MODEL	
APPROVED:	JAG 07/1	9/2017	·	SEEI	NOTE 3, SHEE	Γ1
SCALE	2:1	DATE	6/2	29/2017	SHEET 5 OF	16



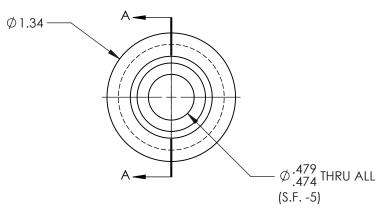
(S.F. -5)

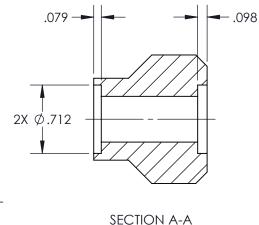
INSERT Ø12mm

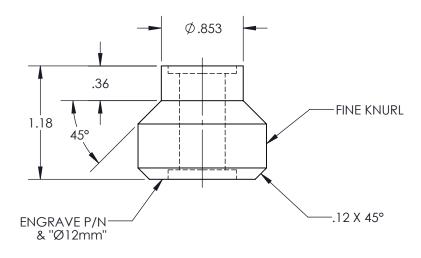
REVISIONS This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR. DESCRIPTION INITIAL APPROVED REV ECR DATE 11X 30° .197 - $\phi^{.479}_{.474}$ THRU ALL (S.F. -5) 3X Ø.847 (6X .245) Ø.704 **ENGRAVE P/N** & "Ø12mm" 6X .219) Ø1.34 -3X .04 X 45° 6X 45° **SECTION A-A** - Ø1.066 · 3X Ø .945 .20 1.28 TITLE MAIN ROTOR DRIVE MOUNTING TOOL FINE KNURL DWG NO. REV RBE117-11181W1-9 UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
(± .005 FRACTIONS ± 1/8
± .01 ANGLES ±.5'
± .1 SURFACES = 125/ MAT'L O-1 HEAT RC 50-55
TREAT BLACK OXIDE .xxx ± .005 .XX ± .01 .X ± .1 **SECTION B-B** SPEC QMSI-6.2.2, B.O. REV D 1. BREAK ALL SHARP EDGES 1. DREAN ALL SHARF EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 DRAWN BY: DD 06/29/2017 CHECKED: RJC 06/30/2017 OPPS APPR: AA 07/10/2017 (-9) QA APPR: USED ON MODEL JL 07/10/2017 APPROVED: JAG 07/19/2017 SEE NOTE 3, SHEET 1 FORMING DIE Ø12mm SCALE DATE 6/29/2017 SHEET 6 OF 16 1:1

		REVISIONS			
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

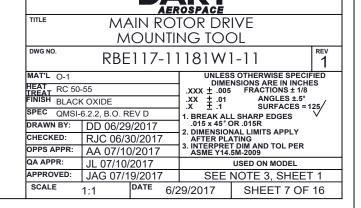




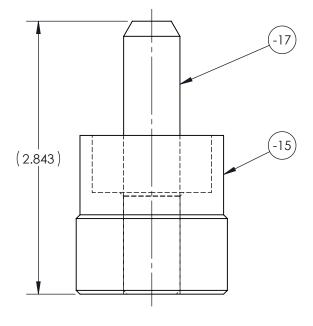


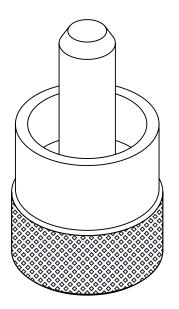


THRUST PIECE Ø12mm



		REVISIONS			
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





TITLE MAIN ROTOR DRIVE MOUNTING TOOL DWG NO. REV RBE117-11181W1-13 MAT'L UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

.XXX ± .005 FRACTIONS ± 1/8

.XX ± .01 ANGLES ± .5°

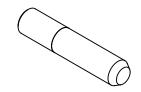
.X ± .1 SURFACES = 125/ HEAT TREAT FINISH SURFACES = 125 SPEC 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R DRAWN BY: DD 06/29/2017 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 CHECKED: RJC 06/30/2017 OPPS APPR: AA 07/10/2017 QA APPR: USED ON MODEL JL 07/10/2017 APPROVED: JAG 07/19/2017 SEE NOTE 3, SHEET 1 SCALE DATE 6/29/2017 SHEET 8 OF 16 1:1

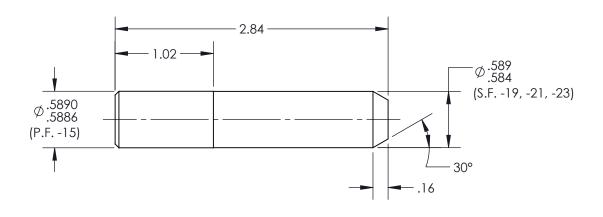
-13

SUPPORT & GUIDE BOLT ASSY Ø15mm

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DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ± .5°
.X ± .1 SURFACES = 125/ MAT'L O-1 HEAT RC 50-55
TREAT BLACK OXIDE SPEC QMSI-6.2.2, B.O. REV D .04 X 45°-1. BREAK ALL SHARP EDGES 1. DREAN ALL SHARF EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 DRAWN BY: DD 06/29/2017 CHECKED: RJC 06/30/2017 OPPS APPR: AA 07/10/2017 QA APPR: USED ON MODEL JL 07/10/2017 APPROVED: JAG 07/19/2017 SEE NOTE 3, SHEET 1 SUPPORT Ø15mm SCALE DATE 6/29/2017 SHEET 9 OF 16 1:1

		REVISIONS			
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







				OSPACE		
TITLE				TOR DR		
	M	OUN	<u> 1111</u>	NG TOC)L	
DWG NO.	RBE	117-	-11	1181W1	I-17	REV 1
MAT'L O-1					S OTHERWISE SPECIF	
HEAT RC 50-	-55			.xxx ± .005	FRACTIONS ± 1/8	:5
	OXIDE			.XX ± .01	ANGLES ±.5° SURFACES = 1	25/
SPEC QMSI-	6.2.2, B.O. R	EV D		1. BREAK ALI	L SHARP EDGES	₹
DRAWN BY:	DD 06/29	/2017		.015 x 45° C	OR .015R NAL LIMITS APPLY	
CHECKED:	RJC 06/3	0/2017	7	AFTER PLA	ATING	
OPPS APPR:	AA 07/10)/2017		ASME Y14.	T DIM AND TOL PER 5M-2009	
QA APPR:	JL 07/10/	2017			USED ON MODEL	
APPROVED:	JAG 07/1	9/2017	7	SEEI	NOTE 3, SHEET	· 1
SCALE	1:1	DATE	6/2	29/2017	SHEET 10 OF	16



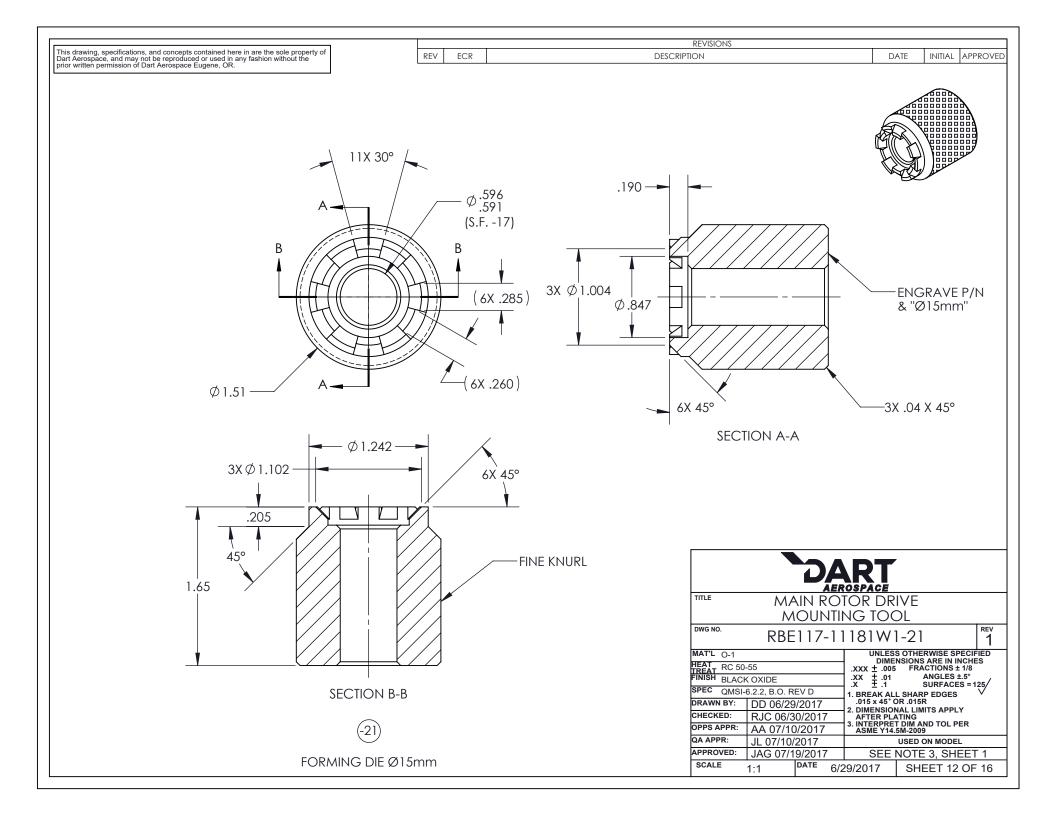
GUIDE BOLT Ø15mm

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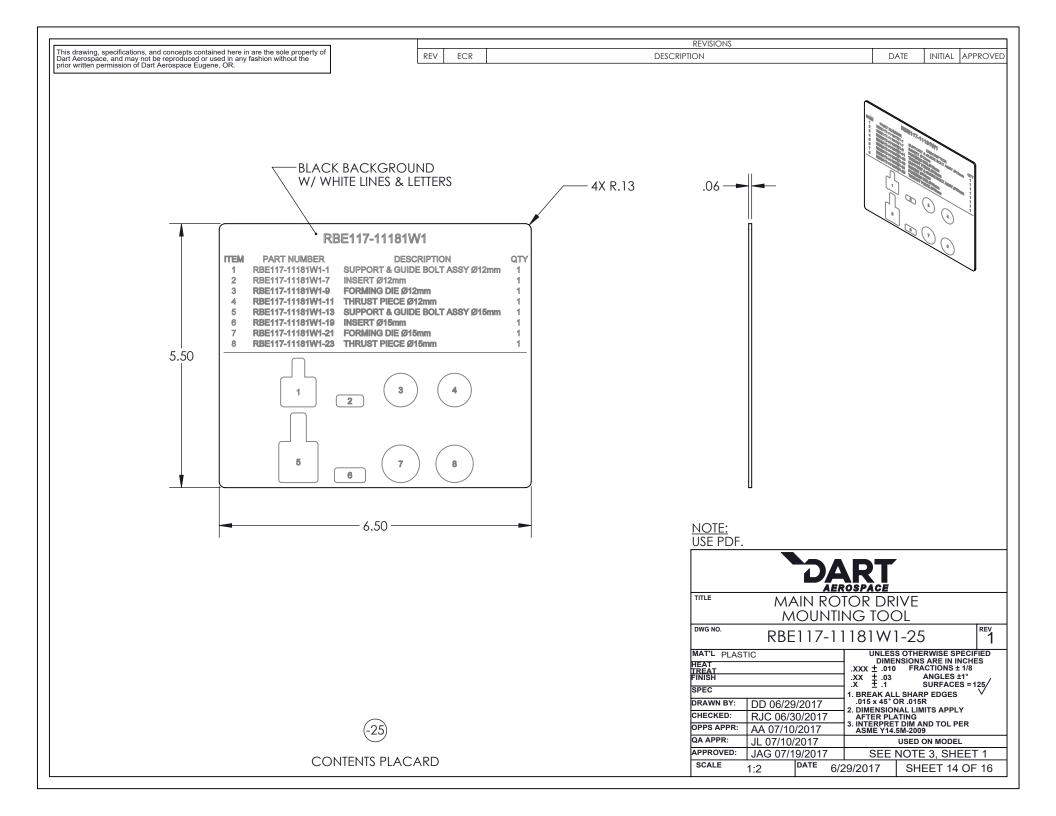
				OSPACE				
TITLE	MAIN ROTOR DRIVE							
	Μ	JUO	<u> 1171</u>	NG TO	DL			
DWG NO.	RBE	117-	-11	181W1	I-19	REV 1		
MAT'L O-1					S OTHERWISE SPECIF			
HEAT RC 50-	-55			.xxx ± .005	FRACTIONS ± 1/8	.5		
	OXIDE			.XX ± .01	25/			
SPEC QMSI-	6.2.2, B.O. R	EV D		L.X ± .1 SURFACES = 125/ 1. BREAK ALL SHARP EDGES				
DRAWN BY:	DD 06/29)/2017		.015 x 45° C	OR .015R NAL LIMITS APPLY			
CHECKED:	RJC 06/3	0/2017	'	AFTER PLA	TING			
OPPS APPR:	AA 07/10)/2017		ASME Y14.	F DIM AND TOL PER 5M-2009			
QA APPR:	JL 07/10/	2017			USED ON MODEL			
APPROVED:	JAG 07/1	9/2017		SEEI	NOTE 3, SHEET	1		
SCALE	2:1	DATE	6/2	29/2017	SHEET 11 OF	16		

(-19)

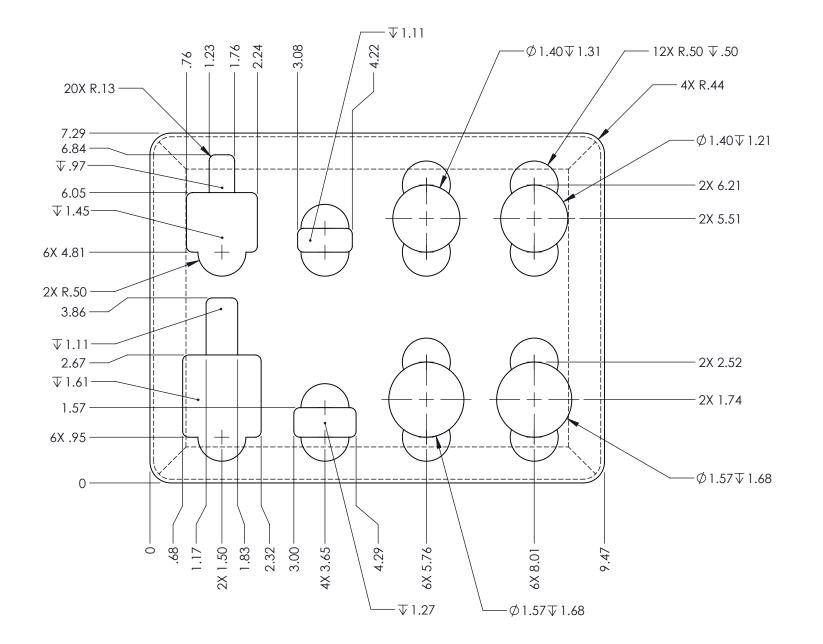
INSERT Ø15mm

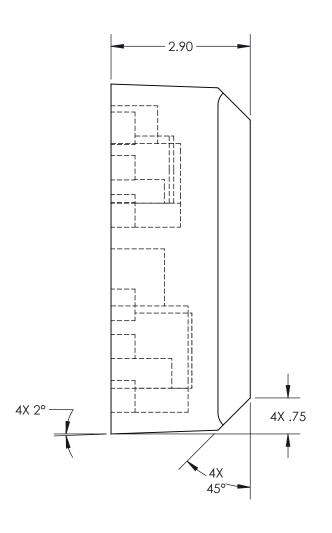


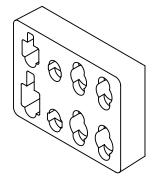
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DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ± .5°
.X ± .1 SURFACES = 125/ MAT'L O-1 HEAT RC 50-55
TREAT BLACK OXIDE -.12 X 45° **ENGRAVE P/N** SPEC QMSI-6.2.2, B.O. REV D 1. BREAK ALL SHARP EDGES & "Ø15mm" 1. DREAN ALL SHARF EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009 DRAWN BY: DD 06/29/2017 CHECKED: RJC 06/30/2017 OPPS APPR: AA 07/10/2017 QA APPR: USED ON MODEL JL 07/10/2017 APPROVED: JAG 07/19/2017 SEE NOTE 3, SHEET 1 THRUST PIECE Ø15mm SCALE DATE 6/29/2017 **SHEET 13 OF 16** 1:1



REV ECR DATE INITIAL APPROVED DESCRIPTION







MAIN ROTOR DRIVE MOUNTING TOOL

DWG NO.	RBE	117-	181W	I <i>-</i> 27	REV 1	
MAT'L ETHAFOAM 220, BLACK				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ±1° .X ± .1 SURFACES = 125 1. BREAK ALL SHARP EDGES		
HEAT TREAT						
FINISH						
SPEC						
DRAWN BY:	DD 06/29	/2017		.015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY		
CHECKED:	RJC 06/30/2017			12. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009		
OPPS APPR:	AA 07/10/2017					
QA APPR:	JL 07/10/2017			USED ON MODEL		
APPROVED:	JAG 07/19/2017			SEE NOTE 3, SHEET 1		
SCALE	1:2 DATE 6/2			29/2017	SHEET 15 OF	16

(-27)

BOTTOM FOAM

